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(54) Title: METHODS AND COMPOSITIONS COMPRISING SUPRAMOLECULAR CONSTRUCTS

Chemically Modified \( \beta\)-amyloid Antigen

DOLPE-NH-(PEG)<sub>n</sub> K-FRHDSGY-K-(PEG)<sub>n</sub>-NH-DOLPE

(57) Abstract: The present invention comprises novel compositions and methods for eliciting high immune responses, of great specificity yielding conformationally sensitive antibodies. These antibodies recognize specific epitopes on a wide variety of antigens including but not limited to, amyloid protein, prion protein,  $P_{170}$  glycoprotein. The novel compositions of the invention comprise supramolecular antigenic constructs generally comprising a peptide sequence, covalently attached to pegylated lysine resulting in modified and enhanced peptide presentation. The unique modification methodology of the present invention is applicable to a variety of peptides and can ultimately be employed in therapeutic formulations and vaccines for diseases and disorders such as Alzheimer's disease.



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